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(12) **United States Design Patent** (10) **Patent No.:** **US D972,074 S**
Kollmann et al. (45) **Date of Patent:** **** Dec. 6, 2022**

(54) **END PLATE FOR A FILTER ELEMENT**

10,737,201 B2 * 8/2020 Roesgen F16N 39/06
D896,342 S * 9/2020 Wei B01D 29/96

(71) Applicant: **Mahle International GmbH**, Stuttgart (DE)

2002/0166810 A1 * 11/2002 LeBlanc B01D 27/08
210/450

(72) Inventors: **Andreas Kollmann**, Eitweg (AT);
Patrick Wieler, Urbach (DE)

(Continued)

FOREIGN PATENT DOCUMENTS

(73) Assignee: **Mahle International GmbH**

DE 3903675 A1 8/1990
DE 19707132 A1 8/1998

(**) Term: **15 Years**

(Continued)

(21) Appl. No.: **29/684,517**

OTHER PUBLICATIONS

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(51) **LOC (13) Cl.** **23-01**

(Continued)

(52) **U.S. Cl.**
USPC **D23/209**

Primary Examiner — Calvin E Vansant

(58) **Field of Classification Search**
USPC D23/200, 207, 209, 365; D9/500, 503,
D9/746

(74) *Attorney, Agent, or Firm* — Fishman Stewart PLLC

CPC B01D 35/30; B01D 35/303; B01D 35/306;
B01D 2201/4046; B01D 27/08; B01D
46/2414; B01D 2201/162; B01D
2201/291; B01D 2201/4053; B01D
2201/4092; C02F 1/003

(57) **CLAIM**

The ornamental design for an end plate for a filter element,
as shown and described.

See application file for complete search history.

DESCRIPTION

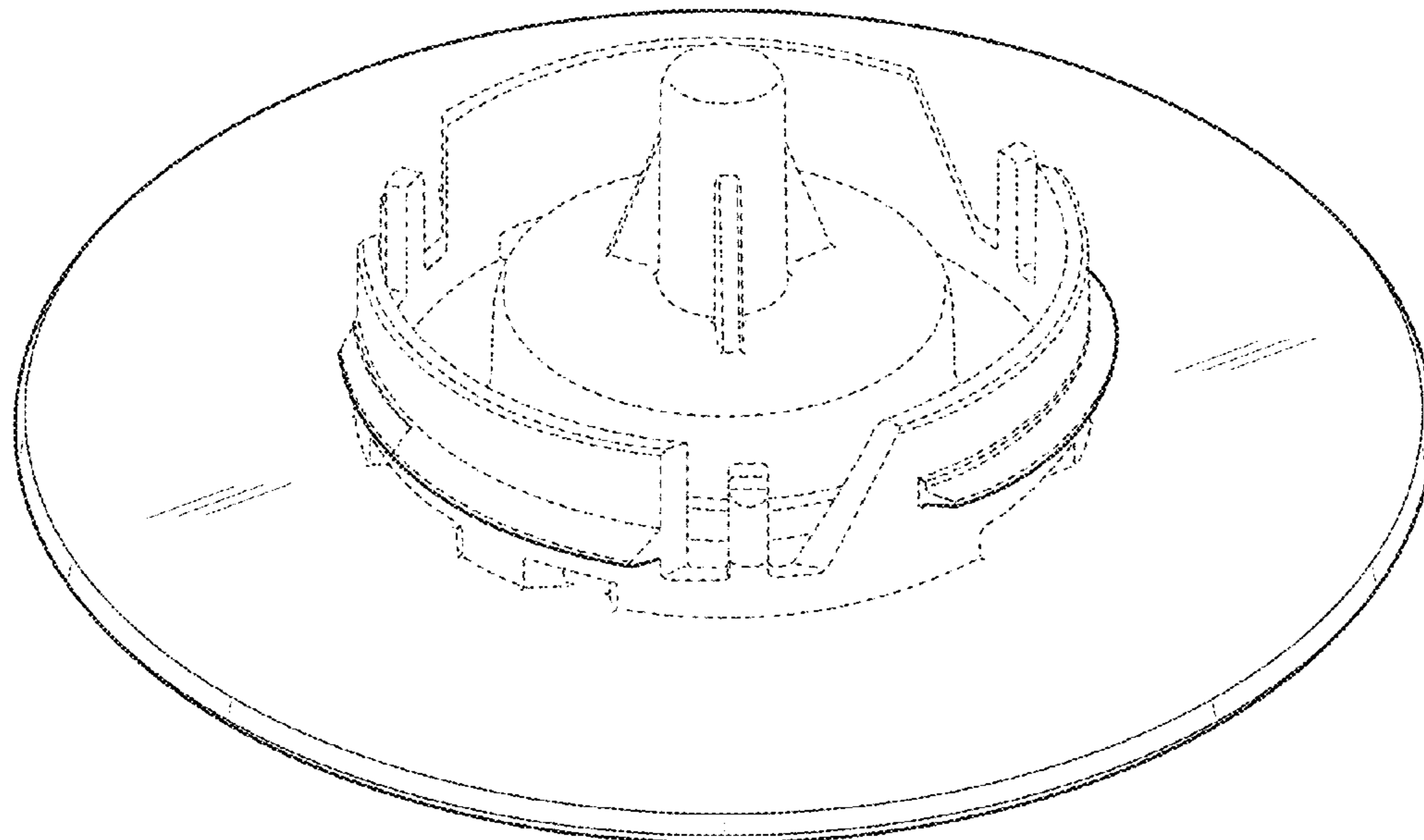
(56) **References Cited**

U.S. PATENT DOCUMENTS

D418,758 S * 1/2000 Yucknut D9/503
6,251,273 B1 * 6/2001 Jawurek B01D 29/96
210/232
8,157,107 B2 * 4/2012 Weindorf B01D 35/153
210/441
9,095,797 B2 * 8/2015 Girondi B01D 46/2414
10,035,090 B2 * 7/2018 Kollmann B01D 35/306
D848,213 S * 5/2019 Cedergren B01D 35/153
D7/397

FIG. 1 is a top perspective view an end plate for a filter element;
FIG. 2 is a bottom perspective view of an end plate for a filter element;
FIG. 3 is a front view of an end plate for a filter element;
FIG. 4 is a back view of an end plate for a filter element;
FIG. 5 is a top view of an end plate for a filter element;
FIG. 6 is a bottom view of an end plate for a filter element;
FIG. 7 is a left-side view of an end plate for a filter element;
and,
FIG. 8 is a right-side view of an end plate for a filter element.
The broken lines in the drawings depict portions of the end plate for a filter element and form no part of the claimed design.

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2005/0000876 A1* 1/2005 Knight B01D 29/96
210/450
2016/0038861 A1* 2/2016 Wildermuth B01D 35/16
210/232
2016/0074778 A1* 3/2016 Herman B01D 36/001
210/436
2016/0332101 A1* 11/2016 Booker B01D 35/147
2018/0161710 A1 6/2018 Kollmann et al.
2020/0179843 A1* 6/2020 Amaral B01D 35/16
2020/0406170 A1* 12/2020 Kollmann B01D 29/111

FOREIGN PATENT DOCUMENTS

DE 19904981 A1 8/2000
DE 102008011616 A1 9/2008
DE 102009024699 A1 12/2010
DE 102012000876 C5 10/2014
WO WO-0110533 A1 2/2001
WO WO-2005123216 A1 12/2005

OTHER PUBLICATIONS

English abstract for DE-3903675-A1.
English abstract for DE-102009024699-A1.
English abstract for DE-19904981-A1.
English abstract for DE-102008011616-A1.

* cited by examiner

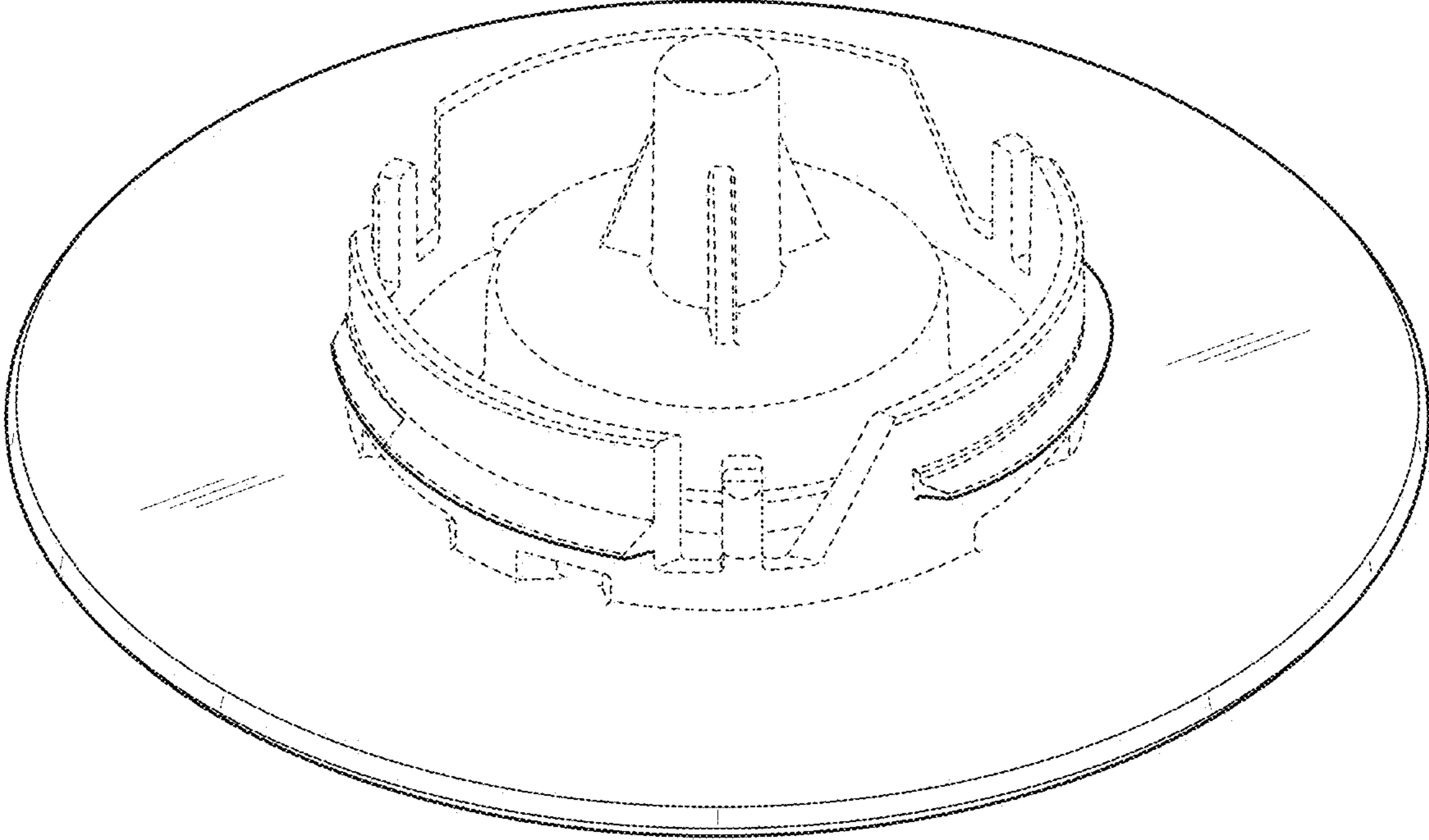


FIG. 1

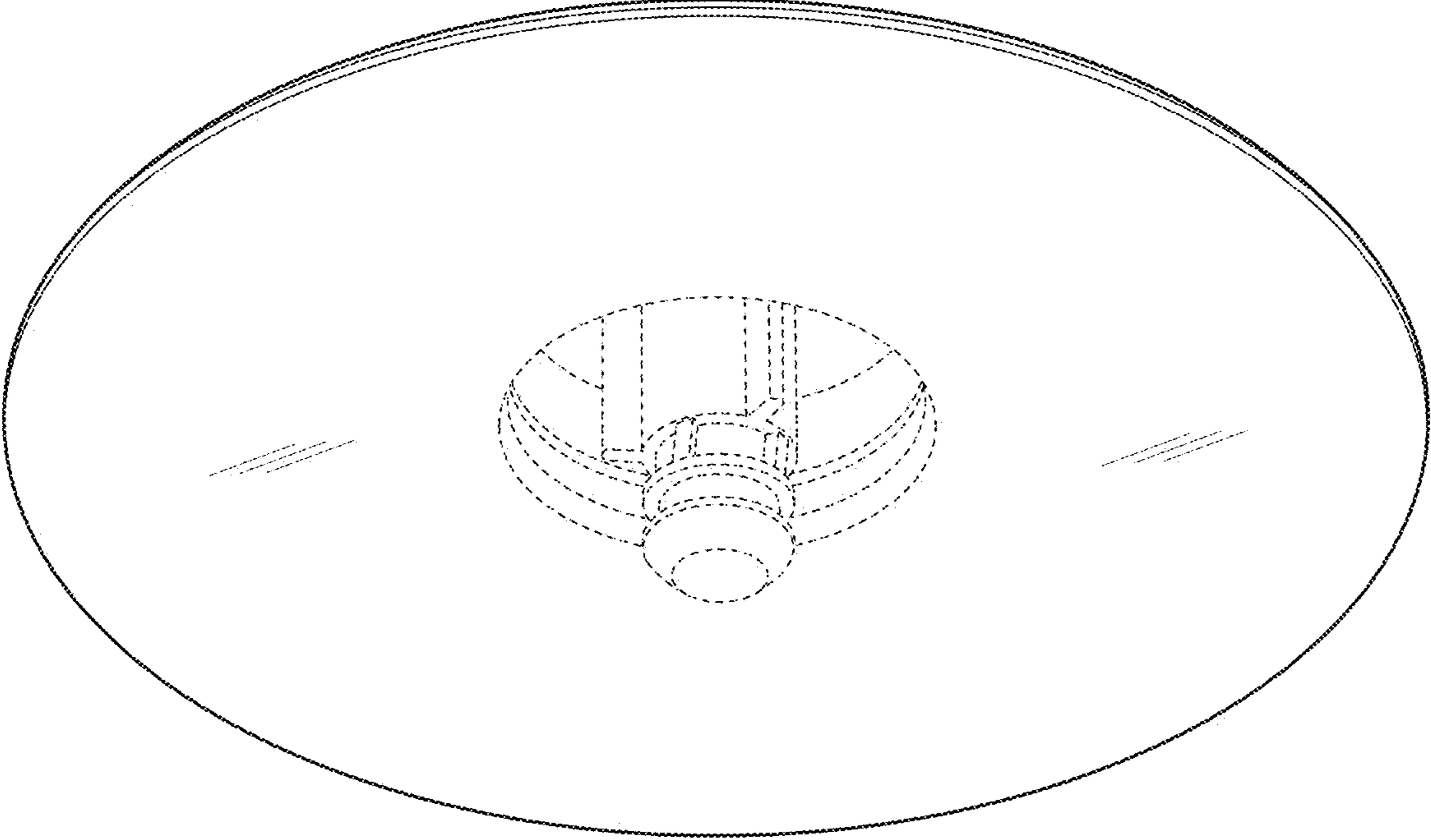


FIG. 2

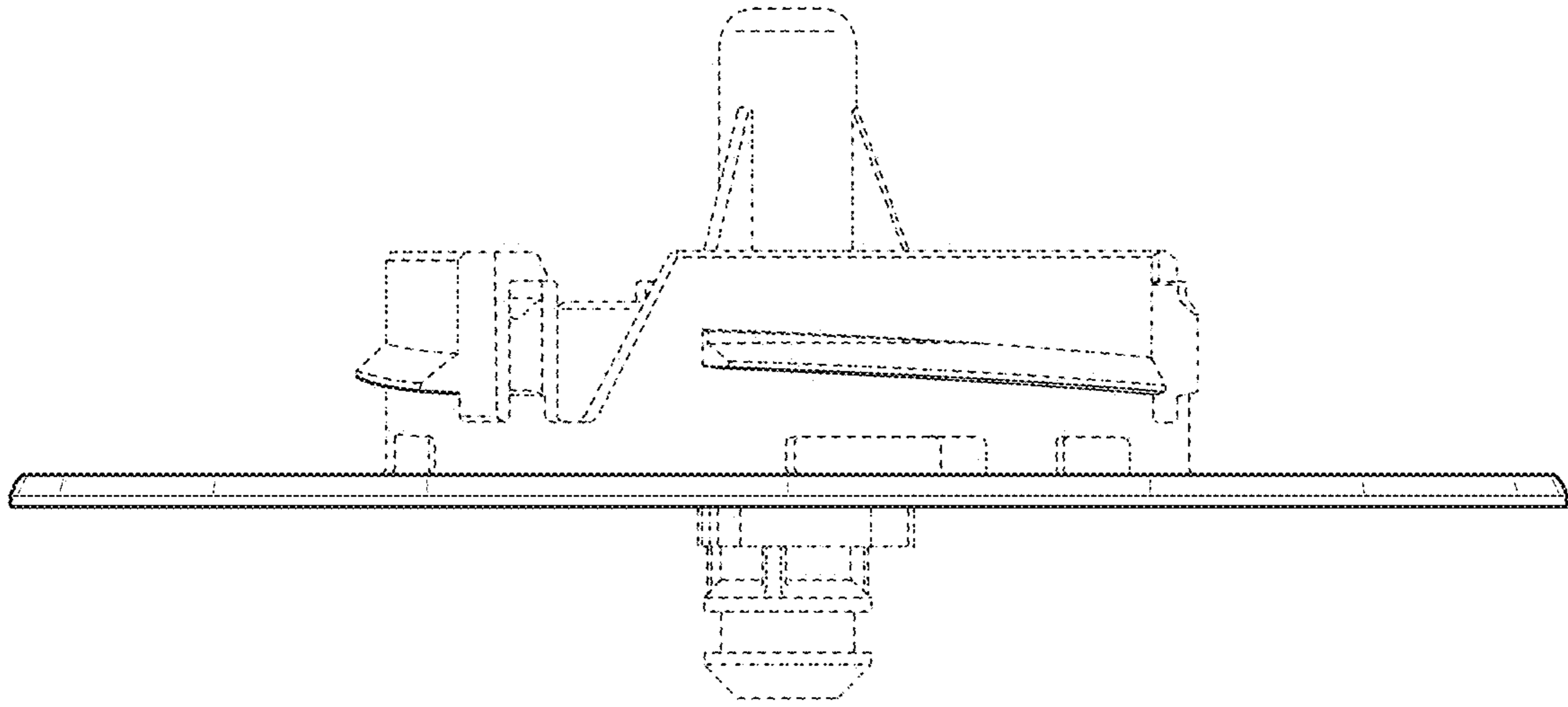


FIG. 3

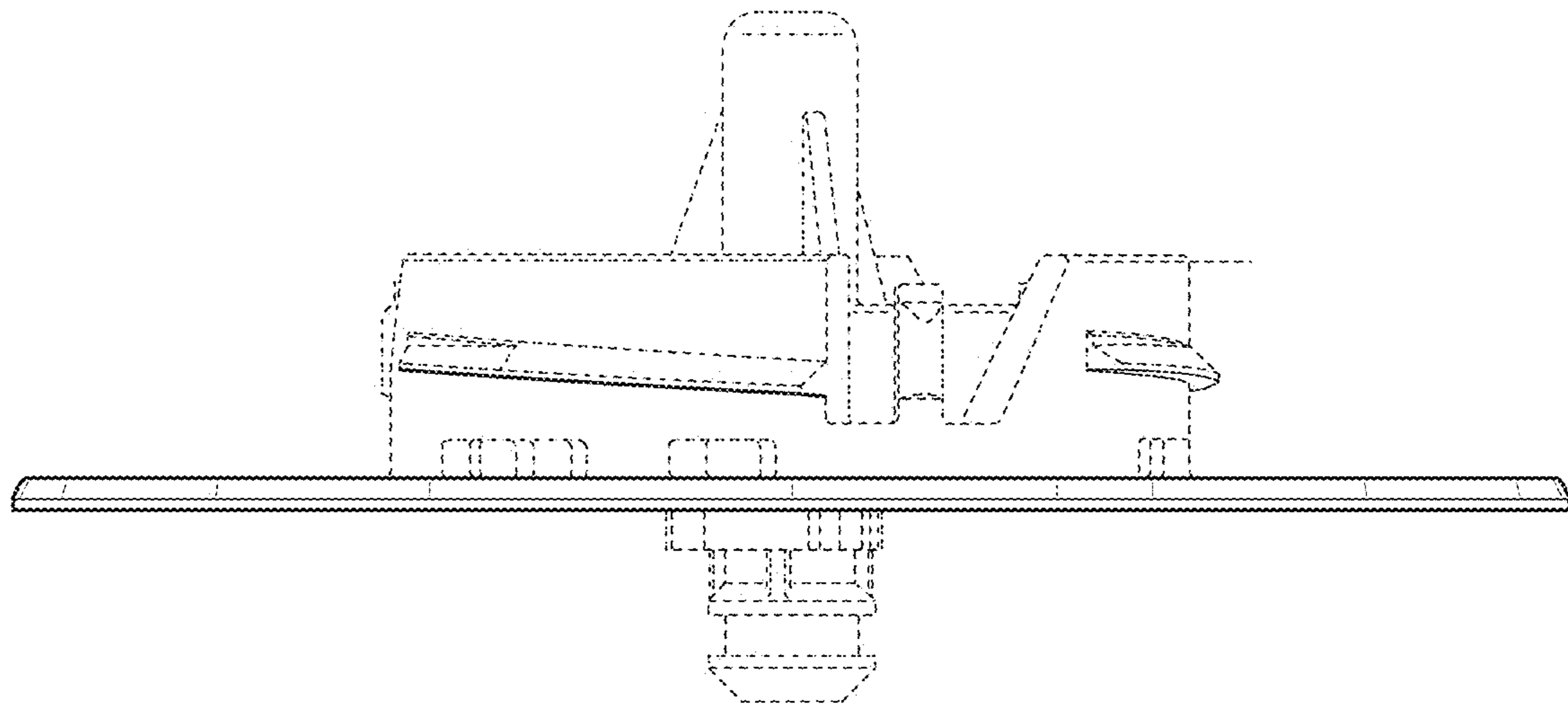


FIG. 4

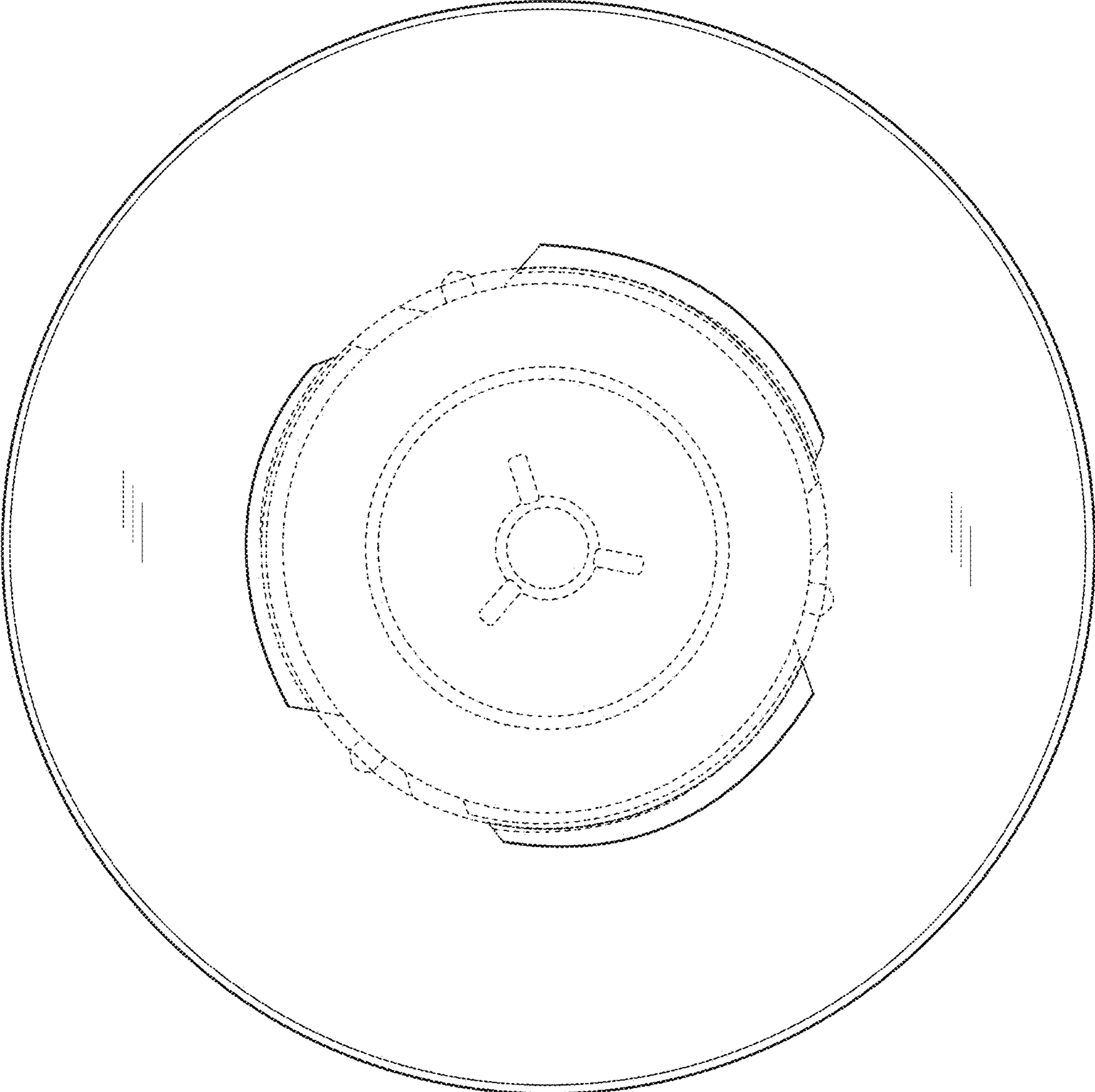


FIG. 5

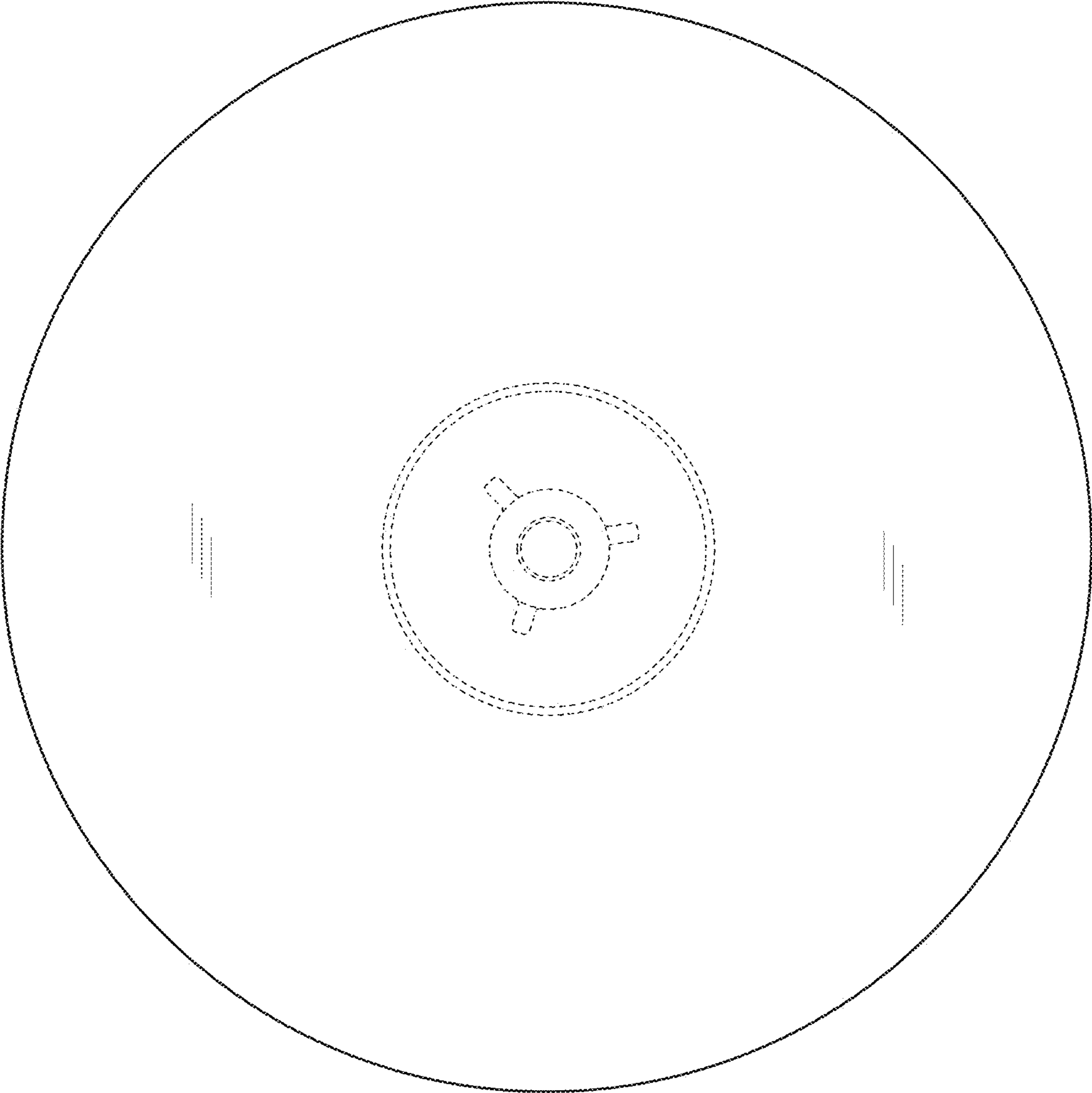


FIG. 6

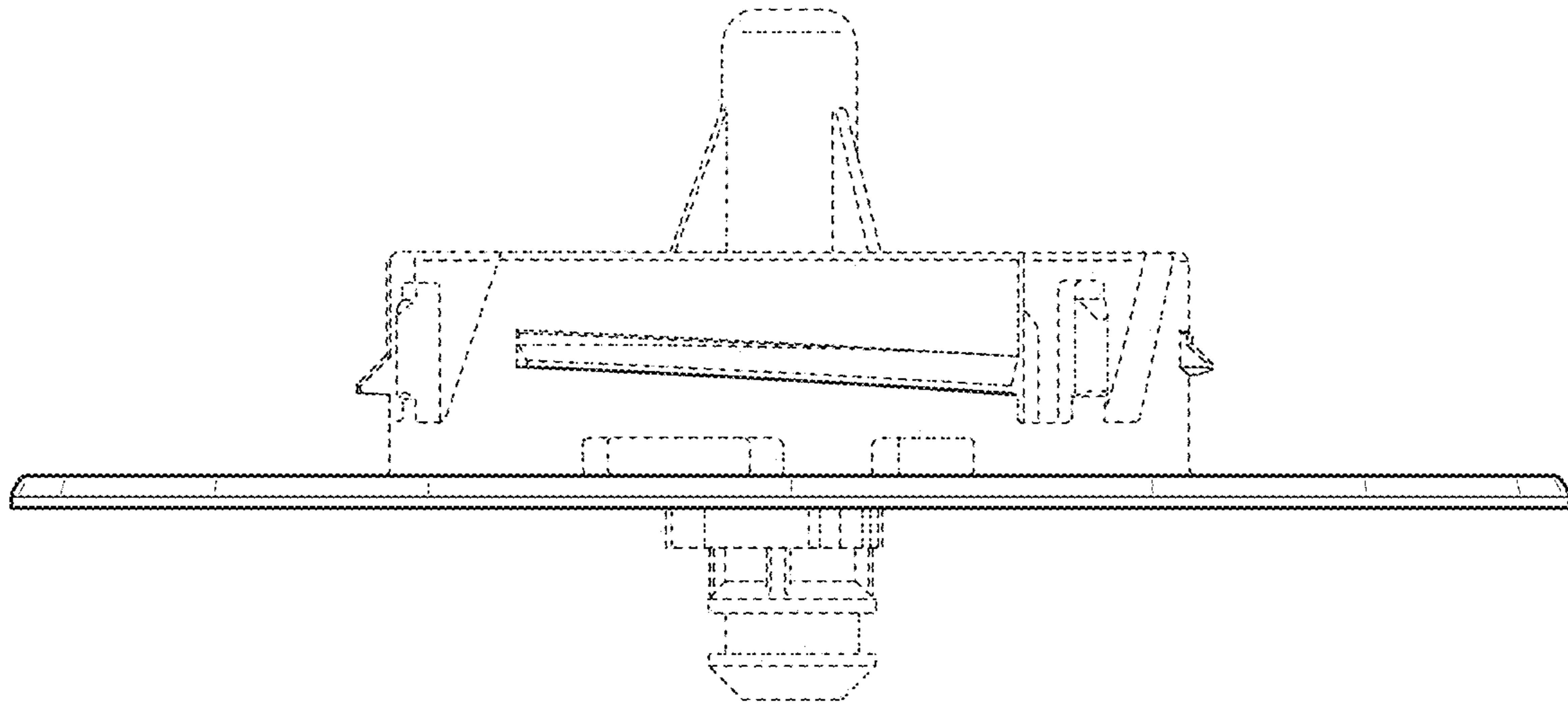


FIG. 7

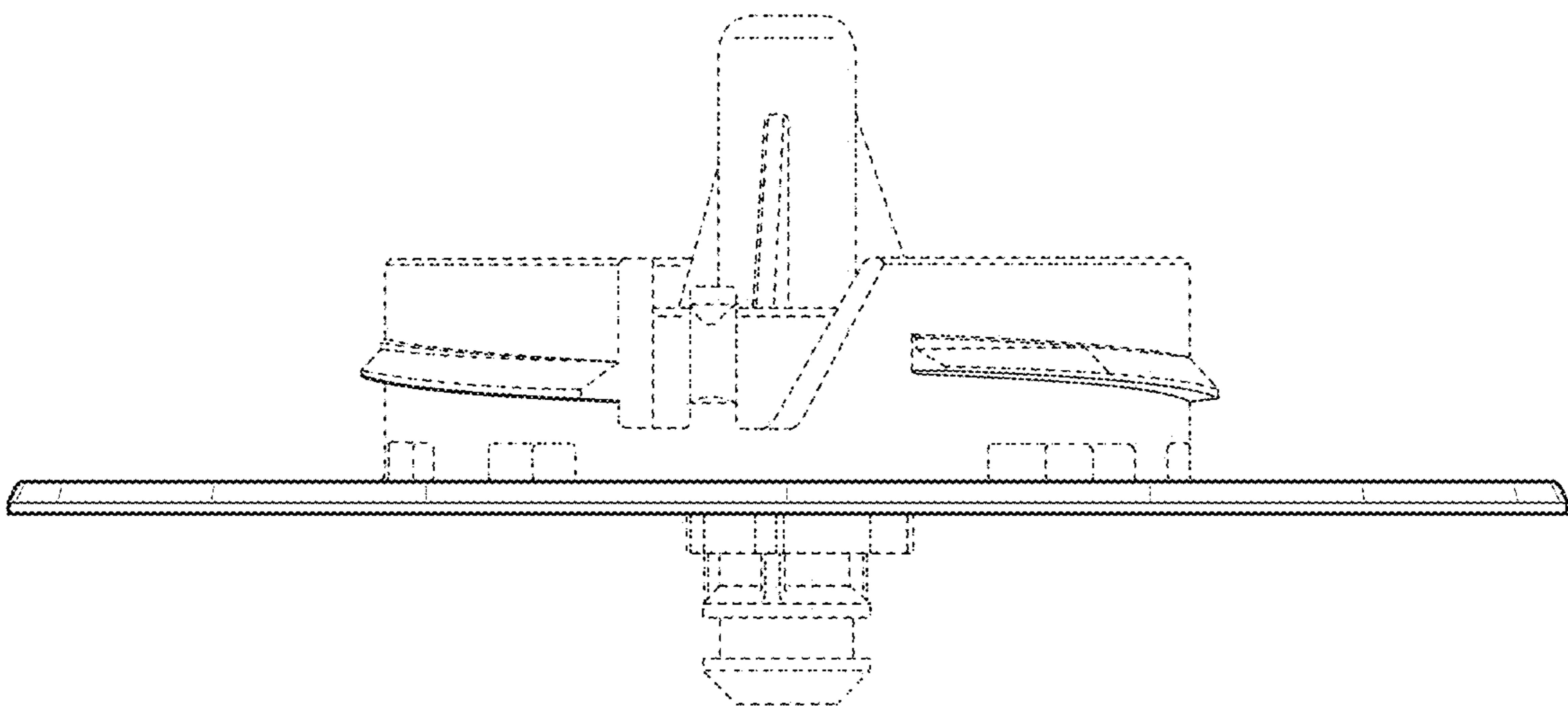


FIG. 8